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NEWS	3	JUN 06	KOREAPAT updated with 41,000 documents
NEWS	4	JUN 13	USPATFULL and USPAT2 updated with 11-character patent numbers for U.S. applications
NEWS	5	JUN 19	CAS REGISTRY includes selected substances from web-based collections
NEWS	6	JUN 25	CA/CAPLUS and USPAT databases updated with IPC reclassification data
NEWS	7	JUN 30	AEROSPACE enhanced with more than 1 million U.S. patent records
NEWS	8	JUN 30	EMBASE, EMBAL, and LEMBASE updated with additional options to display authors and affiliated organizations
NEWS	9	JUN 30	STN on the Web enhanced with new STN AnaVist Assistant and BLAST plug-in
NEWS	10	JUN 30	STN AnaVist enhanced with database content from EPFULL
NEWS	11	JUL 28	CA/CAPLUS patent coverage enhanced
NEWS	12	JUL 28	EPFULL enhanced with additional legal status information from the epline Register
NEWS	13	JUL 28	IFICDB, IFIPAT, and IFIUDB reloaded with enhancements
NEWS	14	JUL 28	STN Viewer performance improved
NEWS	15	AUG 01	INPADOCDB and INPAFAMDB coverage enhanced
NEWS	16	AUG 13	CA/CAPLUS enhanced with printed Chemical Abstracts page images from 1967-1998
NEWS	17	AUG 15	CAOLD to be discontinued on December 31, 2008
NEWS	18	AUG 15	CAPLUS currency for Korean patents enhanced
NEWS	19	AUG 27	CAS definition of basic patents expanded to ensure comprehensive access to substance and sequence information
NEWS	20	SEP 18	Support for STN Express, Versions 6.01 and earlier, to be discontinued
NEWS	21	SEP 25	CA/CAPLUS current-awareness alert options enhanced to accommodate supplemental CAS indexing of exemplified prophetic substances
NEWS	22	SEP 26	WPIDS, WPINDEX, and WPIX coverage of Chinese and Korean patents enhanced
NEWS	23	SEP 29	IFICLS enhanced with new super search field
NEWS	24	SEP 29	EMBASE and EMBAL enhanced with new search and display fields
NEWS	25	SEP 30	CAS patent coverage enhanced to include exemplified prophetic substances identified in new Japanese-language patents
NEWS	26	OCT 07	EPFULL enhanced with full implementation of EPC2000
NEWS	27	OCT 07	Multiple databases enhanced for more flexible patent

number searching

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,  
AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 10:36:55 ON 20 OCT 2008

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'CAPLUS' ENTERED AT 10:37:20 ON 20 OCT 2008

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FILE COVERS 1907 - 20 Oct 2008 VOL 149 ISS 17

FILE LAST UPDATED: 19 Oct 2008 (20081019/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/legal/infopolicy.html>

=> s injections

L1 130430 INJECTIONS

=> s l1 and pentaprezole

0 PENTAPREZOLE

L2 0 L1 AND PENTAPREZOLE

```
=> s l1 and pentoprazole
      0 PENTOPRAZOLE
L3      0 L1 AND PENTOPRAZOLE
```

```
=> l1 and "butyl rubber stoppers"
L1 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).
```

```
=> s l1 and "butyl rubber stoppers"
      297379 "BUTYL"
      52 "BUTYLS"
      297408 "BUTYL"
          ("BUTYL" OR "BUTYLS")
      387865 "RUBBER"
      162736 "RUBBERS"
      474725 "RUBBER"
          ("RUBBER" OR "RUBBERS")
      3806 "STOPPERS"
      27 "BUTYL RUBBER STOPPERS"
          ("BUTYL"(W)"RUBBER"(W)"STOPPERS")
L4      3 L1 AND "BUTYL RUBBER STOPPERS"
```

```
=> d l4 1-3 ibib ab
```

```
L4  ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:      2006:936430  CAPLUS
DOCUMENT NUMBER:      145:321692
TITLE:      Method for manufacturing aseptic mixed powder
              injection containing cefpiramide
INVENTOR(S):      Zhang, Qinghua
PATENT ASSIGNEE(S):      Peop. Rep. China
SOURCE:      Faming Zhuanli Shenqing Gongkai Shuomingshu, 4pp.
              CODEN: CNXXEV
DOCUMENT TYPE:      Patent
LANGUAGE:      Chinese
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:
```

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
CN 1823783	A	20060830	CN 2005-10031272	20050221
PRIORITY APPLN. INFO.:			CN 2005-10031272	20050221
AB The title method comprises the following steps: (1) pulverizing aseptic cefpiramide and aseptic sodium carbonate, and screening with a 100-mesh sieve in a clean zone with cleanliness class 100 (the relative humidity is < 60%), (2) adding aseptic cefpiramide to 20 mL vials (1.0 g of anhydride per vial) in a clean zone with cleanliness class 100 (the relative humidity is < 60%), (3) adding sodium carbonate to the vials (0.2 g of anhydride per vial), and (4) packaging with butyl rubber stoppers and flip-tear off caps to obtain the final product. The method has the advantages of high yield, high product purity, and low drug degradation rate.				

```
L4  ANSWER 2 OF 3  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:      2002:590447  CAPLUS
DOCUMENT NUMBER:      137:114512
TITLE:      Process for the preparation of composite
              pharmaceutical formulations containing pefloxacin
INVENTOR(S):      Khorakiwala, Habil
```

PATENT ASSIGNEE(S): Wockhardt Limited, India  
 SOURCE: Indian, 9 pp.  
 CODEN: INXXAP  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IN 172680	A1	19931106	IN 1992-BO369	19921124
PRIORITY APPLN. INFO.:			IN 1992-BO369	19921124

AB A process for the preparation of a composite pharmaceutical formulation containing

pefloxacin suitable for i.v. injection comprises dissolving pefloxacin mesylate dihydrate in water and adding thereto dextrose (anhydrous) at 5-30°. Propylene glycol is added to give a stable preparation, and sodium metabisulfite and/or disodium ethylenediaminetetracetate is added to give a clear and colorless formulation. Nitrogen is bubbled through the mixture which is then autoclaved at 100-130° to sterilize the mixture and the mixture filled in USP bottles. Pefloxacin mesylate dihydrate 559 mg (= 400 mg pefloxacin) was dissolved in 50 mL water for injection, followed by 5 g dextrose. Propylene glycol (0.5 mL) was added and the solution was stirred for 30 min. It was filtered and filled in a sterilized bottle, plugged with bromobutyl plug and sealed with aluminum seal. The bottle was heated in an autoclave at 121° for 45 min and cooled.

The solution was clear with a pH of 3.2 and the temperature of the solution was kept at 10°.

L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1978:535825 CAPLUS  
 DOCUMENT NUMBER: 89:135825  
 ORIGINAL REFERENCE NO.: 89:20927a,20930a  
 TITLE: Butyl rubber stoppers  
 for sealing bottles containing blood substitutes and  
 injection solutions  
 AUTHOR(S): Kosyрева, N. S.; Loginova, L. I.; Shenfil, L. Z.;  
 Bovenko, V. N.  
 CORPORATE SOURCE: Vses. Nauchno-Issled. Inst. Farm., Moscow, USSR  
 SOURCE: Farmatsiya (Moscow, Russian Federation) (1978), (4),  
 49-51  
 CODEN: FRMTAL; ISSN: 0367-3014

DOCUMENT TYPE: Journal  
 LANGUAGE: Russian

AB Newly developed butyl rubber for injections and blood substitutes when left in contact with water for injections or physiol. saline at 120° for 30 min showed no Zn, Pb, Ba, etc., in the extract. It was superior to the other rubbers in its oxidation indicators and did not lower the pH of the solns. (contrary to the earlier rubbers). It showed no toxicity, bactericidal properties, and hemolytic action. Storage of various solns. in contact with the stoppers made from this rubber at elevated temps. led to the formation of volatile sulfides which imparted H<sub>2</sub>S odor to the preps. However, storage at room temperature for 18

mo gave no such odor. Stickiness associated with these butyl rubbers was reduced by selecting high-mol. weight butyl rubber and siliconization.

=> FIL STNGUIDE

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

FULL ESTIMATED COST	ENTRY 23.37	SESSION 23.58
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-2.40	-2.40

FILE 'STNGUIDE' ENTERED AT 10:39:52 ON 20 OCT 2008  
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FILE CONTAINS CURRENT INFORMATION.  
 LAST RELOADED: Oct 17, 2008 (20081017/UP).

```
=> s "butyl rubber stoppers"
      0 "BUTYL"
      3 "RUBBER"
      1 "RUBBERS"
      4 "RUBBER"
        ("RUBBER" OR "RUBBERS")
      0 "STOPPERS"
L5      0 "BUTYL RUBBER STOPPERS"
        ("BUTYL" (W) "RUBBER" (W) "STOPPERS")
```

```
=> s l1 and stoppers
      0 INJECTIONS
      0 STOPPERS
L6      0 L1 AND STOPPERS
```

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.12	23.70
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-2.40

FILE 'CAPLUS' ENTERED AT 10:41:19 ON 20 OCT 2008  
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FILE COVERS 1907 - 20 Oct 2008 VOL 149 ISS 17  
 FILE LAST UPDATED: 19 Oct 2008 (20081019/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

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They are available for your review at:

<http://www.cas.org/legal/infopolicy.html>

```
=> s "butyl rubber stoppers"
    297379 "BUTYL"
      52 "BUTYLS"
    297408 "BUTYL"
          ("BUTYL" OR "BUTYLS")
    387865 "RUBBER"
    162736 "RUBBERS"
    474725 "RUBBER"
          ("RUBBER" OR "RUBBERS")
    3806 "STOPPERS"
L7      27 "BUTYL RUBBER STOPPERS"
          ("BUTYL" (W) "RUBBER" (W) "STOPPERS")
```

=> d 17 1-27 ibib ab

L7 ANSWER 1 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:936430 CAPLUS  
DOCUMENT NUMBER: 145:321692  
TITLE: Method for manufacturing aseptic mixed powder  
injection containing cefpiramide  
INVENTOR(S): Zhang, Qinghua  
PATENT ASSIGNEE(S): Peop. Rep. China  
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 4pp.  
CODEN: CNXXEV  
DOCUMENT TYPE: Patent  
LANGUAGE: Chinese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
CN 1823783	A	20060830	CN 2005-10031272	20050221
PRIORITY APPLN. INFO.:			CN 2005-10031272	20050221

AB The title method comprises the following steps: (1) pulverizing aseptic cefpiramide and aseptic sodium carbonate, and screening with a 100-mesh sieve in a clean zone with cleanliness class 100 (the relative humidity is < 60%), (2) adding aseptic cefpiramide to 20 mL vials (1.0 g of anhydride per vial) in a clean zone with cleanliness class 100 (the relative humidity is < 60%), (3) adding sodium carbonate to the vials (0.2 g of anhydride per vial), and (4) packaging with butyl rubber stoppers and flip-tear off caps to obtain the final product. The method has the advantages of high yield, high product purity, and low drug degradation rate.

L7 ANSWER 2 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:957193 CAPLUS  
DOCUMENT NUMBER: 141:396872  
TITLE: Coating method for rubber stoppers of blood inspection  
containers  
INVENTOR(S): Minamoto, Masaaki; Isokawa, Hironobu  
PATENT ASSIGNEE(S): Sekisui Chemical Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004314006	A	20041111	JP 2003-114501	20030418
PRIORITY APPLN. INFO.:			JP 2003-114501	20030418
AB Title method involves ultrasonically dispersing water-insol. or hardly soluble coating agents in water and coating the dispersions on substrates. The brominated butyl rubber stoppers were soaked in an aqueous dispersion of silicone oil, ultrasonically vibrated, and vacuum dried to form coated stoppers showing no adherence of blood clot on the stoppers and no hemolysis occurrence.				

L7 ANSWER 3 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:200192 CAPLUS

DOCUMENT NUMBER: 140:205212

TITLE: Rubber stoppers having inorganic coating layers for medical containers

INVENTOR(S): Sudo, Morihiro

PATENT ASSIGNEE(S): Daikyo Gomu Seiko Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004073219	A	20040311	JP 2002-233403	20020809
PRIORITY APPLN. INFO.:			JP 2002-233403	20020809
AB The invention relates to a rubber stopper having a flange and legs, wherein the stopper is characterized by having an inorg. coating layer at least at the flange and/or legs, thereby preventing self-sticking during washing and transporting. Butyl rubber stoppers were coated with diamond-like carbon layers to obtain stoppers for vials.				

L7 ANSWER 4 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:590447 CAPLUS

DOCUMENT NUMBER: 137:114512

TITLE: Process for the preparation of composite pharmaceutical formulations containing pefloxacin

INVENTOR(S): Khorakiwala, Habil

PATENT ASSIGNEE(S): Wockhardt Limited, India

SOURCE: Indian, 9 pp.  
CODEN: INXXAP

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IN 172680	A1	19931106	IN 1992-BO369	19921124
PRIORITY APPLN. INFO.:			IN 1992-BO369	19921124
AB A process for the preparation of a composite pharmaceutical formulation containing pefloxacin suitable for i.v. injection comprises dissolving pefloxacin mesylate dihydrate in water and adding thereto dextrose (anhydrous) at 5-30°. Propylene glycol is added to give a stable preparation, and sodium metabisulfite and/or disodium ethylenediaminetetracetate is added				

to give a clear and colorless formulation. Nitrogen is bubbled through the mixture which is then autoclaved at 100-130° to sterilize the mixture and the mixture filled in USP bottles. Pefloxacin mesylate dihydrate 559 mg (= 400 mg pefloxacin) was dissolved in 50 mL water for injection, followed by 5 g dextrose. Propylene glycol (0.5 mL) was added and the solution was stirred for 30 min. It was filtered and filled in a sterilized bottle, plugged with bromobutyl plug and sealed with aluminum seal. The bottle was heated in an autoclave at 121° for 45 min and cooled. The solution was clear with a pH of 3.2 and the temperature of the solution was kept at 10°.

L7 ANSWER 5 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:577984 CAPLUS

DOCUMENT NUMBER: 137:262439

TITLE: Inorganic carbon analysis by modified pressure-calculator method

AUTHOR(S): Sherrod, L. A.; Dunn, G.; Peterson, G. A.; Kolberg, R. L.

CORPORATE SOURCE: Great Plains Systems Res. Unit, USDA-ARS, Fort Collins, CO, 80522, USA

SOURCE: Soil Science Society of America Journal (2002), 66(1), 299-305

CODEN: SSSJD4; ISSN: 0361-5995

PUBLISHER: Soil Science Society of America, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Soil organic C (SOC) analyses using high temperature induction furnace combustion

methods have become increasingly popular because of advances in instrumentation. Combustion methods, however, also include C from CaCO<sub>3</sub> and CaMg(CO<sub>3</sub>)<sub>2</sub> found in calcareous soils. Sep. anal. of the inorg. C (IC) must be done to correct C data from combustion methods. The authors' objective was to develop an efficient and precise IC method by modification of the pressure-calculator method. The method was modified by using Wheaton serum bottles (20-mL and 100-mL) sealed with butyl rubber stoppers and aluminum tear-off seals as the reaction vessel and a pressure transducer monitored by a digital voltmeter. The gravimetric IC determination of six soils showed a strong correlation when regressed against IC from the modified pressure-calculator method (slope of 0.99, r<sup>2</sup> = 0.998). The method detection limit (MDL) was 0.17 g IC kg<sup>-1</sup> for the 20-mL serum bottles and the limit of quantification (LOQ) was 0.30 g IC kg<sup>-1</sup>. The 100-mL serum bottle had a MDL of 0.42 with a LOQ of 2.4 g IC kg<sup>-1</sup>. When using a 100-mL Wheaton serum bottle as the reaction vessel with a 0.50-g sample size, soils containing up to 120 g IC kg<sup>-1</sup>, which represent a 100% CaCO<sub>3</sub> equivalent, can be analyzed within the V output range of the pressure transducer.

Soil organic C determined by subtraction of IC from total C from combustion anal.

correlated well with SOC determined by the Walkley-Black.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:557067 CAPLUS

DOCUMENT NUMBER: 137:244170

TITLE: A rapid and precise technique for measuring  $\delta^{13}\text{C}$ -CO<sub>2</sub> and  $\delta^{18}\text{O}$ -CO<sub>2</sub> ratios at ambient CO<sub>2</sub> concentrations for biological applications and the influence of container type and storage time on the sample isotope ratios



AUTHOR(S): Mortazavi, Behzad; Chanton, Jeffrey P.  
CORPORATE SOURCE: Department of Oceanography, Florida State University,  
Tallahassee, FL, 32306-4320, USA  
SOURCE: Rapid Communications in Mass Spectrometry (2002),  
16(14), 1398-1403  
CODEN: RCMSEF; ISSN: 0951-4198  
PUBLISHER: John Wiley & Sons Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB A simple modification to a com. available gas chromatograph isotope ratio mass spectrometer (GC/IRMS) allows rapid and precise determination of the stable isotopes ( $^{13}\text{C}$  and  $^{18}\text{O}$ ) of  $\text{CO}_2$  at ambient  $\text{CO}_2$  concns. A sample loop was inserted downstream of the GC injection port and used to introduce small vols. of air samples into the GC/IRMS. This procedure does not require a cryofocusing step and significantly reduces the anal. time. The precisions for  $\delta^{13}\text{C}$  and  $\delta^{18}\text{O}$  of  $\text{CO}_2$  at ambient concentration were  $\pm 0.164$  and  $\pm 0.247$ .permill., resp. This modified GC/IRMS was used to test the effects of storage on the  $^{18}\text{O}$  and  $^{13}\text{C}$  isotopic ratios of  $\text{CO}_2$  at ambient concns. in four container types. On average, the change in the  $^{13}\text{C}$ - $\text{CO}_2$  and  $^{18}\text{O}$ - $\text{CO}_2$  ratios of samples after one week of storage in glass vials equipped with butyl rubber stoppers (Bellco Glass Inc.) were depleted by 0.12 and by 0.20.permill., resp. The  $^{13}\text{C}$  ratios in aluminum canisters (Scotty II and IV, Scott Specialty Gasses) after one month of storage were depleted, on average, by 0.73 and 2.04.permill., resp., while the  $^{18}\text{O}$  ratios were depleted by 0.38 and 1.20.permill. for the Scotty II and IV, resp. After a month of storage in electropolished containers (Summa canisters, Biospheric Research Corporation), the  $^{13}\text{C}$ - $\text{CO}_2$  and  $^{18}\text{O}$ - $\text{CO}_2$  ratios were depleted, on average, by 0.26 and enriched by 0.30.permill., resp., close to the precision of measurements. Samples were collected at a mature hardwood forest for  $\text{CO}_2$  concentration determination and isotopic anal. A comparison of  $\text{CO}_2$  concns. determined with an

IR gas analyzer and from sample voltages, determined on the GC/IRMS concurrent with the isotopic anal., indicated that  $\text{CO}_2$  concns. can be determined reliably with the GC/IRMS technique. The  $^{13}\text{C}$  and  $^{18}\text{O}$  ratios of nighttime ecosystem-respired  $\text{CO}_2$ , determined from the intercept of Keeling plots, were -26.11.permill. (V-PDB) and -8.81.permill. (V-PDB- $\text{CO}_2$ ), resp.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:372800 CAPLUS

DOCUMENT NUMBER: 137:190138

TITLE: Operating conditions for the determination of the biochemical acidogenic potential of wastewater

AUTHOR(S): Ruel, S. Martin; Comeau, Y.; Heduit, A.; Deronzier, G.; Ginestet, P.; Audic, J. M.

CORPORATE SOURCE: Cemagref, QHAN Research Unit, Antony, 92163, Fr.

SOURCE: Water Research (2002), 36(9), 2337-2341

CODEN: WATRAG; ISSN: 0043-1354

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The aim of this work was to study the test conditions for the determination of the

biochem. acidogenic potential (BAP) of wastewater, which should be useful for predicting the performance of enhanced biol. phosphorus removal (EBPR). Proposed operating conditions for a simple and reproducible BAP test in 250-mL serum bottles (equipped with black butyl rubber stoppers and magnetic bars) are: use of either

frozen or fresh water, no inoculum addition, fermentation carried out in the dark during 15 days, addition of 1mM bromoethanesulfonate (BES) and 2mM barium chloride, stirring speed strong enough to maintain vortex conditions, no pH control, and a controlled temperature of 20°.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:268543 CAPLUS  
DOCUMENT NUMBER: 128:322738  
ORIGINAL REFERENCE NO.: 128:63963a,63966a  
TITLE: Process for the enhancement of the desiccating capacity of polymers  
INVENTOR(S): Clapham, David; Nicholson, Roy; Taskis, Charles Bernard  
PATENT ASSIGNEE(S): Smithkline Beecham Plc, UK; Clapham, David; Nicholson, Roy; Taskis, Charles Bernard  
SOURCE: PCT Int. Appl., 19 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9817711	A1	19980430	WO 1997-GB2844	19971015
W: JP, US				

PRIORITY APPLN. INFO.: RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
GB 1996-21822 A 19961019

AB A process for the enhancement of the desiccating capacity of a desiccant polymer is characterized in that it includes the step of exposing the said desiccant polymer to electromagnetic radiation such as microwave or radiofrequency radiation of a wavelength/frequency that is absorbed by water mols. The polymer is optionally filled with an inorg. desiccant. Typical articles for treatment by this process are brominated butyl rubber stoppers filled with 40 phr each talc and mol. sieve desiccant for pharmaceutical vials.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 9 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:737652 CAPLUS  
DOCUMENT NUMBER: 128:26899  
ORIGINAL REFERENCE NO.: 128:5191a,5194a  
TITLE: Pharmaceutical container/closure integrity I: mass spectrometry-based helium leak rate detection for rubber-stoppered glass vials  
AUTHOR(S): Kirsch, Lee E.; Nguyen, Lida; Moeckly, Craig S.  
CORPORATE SOURCE: Division of Pharmaceutics, College of Pharmacy, The University of Iowa, Iowa City, IA, USA  
SOURCE: PDA Journal of Pharmaceutical Science and Technology (1997), 51(5), 187-194  
CODEN: JPHTEU; ISSN: 1076-397X  
PUBLISHER: PDA, Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The development of mass spectrometry-based leak detection for pharmaceutical container integrity was undertaken to provide an alternative to microbial challenge testing. Standard 10-mL vials were

modified to contain pinholes (0.5 to 10  $\mu$ ) by affixing micropipettes with epoxy into 2-mm vial side wall holes. The absolute leak rate was determined using vials that were sealed in a tracer (helium) environment with butyl rubber stoppers and crimps. Alternatively leak rates were determined using vials that were sealed in room air and exposed to tracer under pressure (charging or bombing). Tracer leak rates were measured with mass spectrometry leak rate detectors. The absolute leak rate was correlated the squared nominal leak radius which suggested that the mode of gas flow through the glass pipet leaks was more turbulent than viscous even at low leak rates typically associated with viscous flow. The min. observed absolute leak rate was about 10<sup>-6.6</sup> std cc/s and

was likely due to helium permeation through the rubber stoppers. Heat-stressed rubber stoppers did not affect the baseline absolute leak rate. Adsorption of helium tracer to the test unit surfaces was found to confound baseline leak rate measurement reliability but was eliminated as a source of variation by exposing the test units to ambient air for  $\geq 12$  h. The absolute leak rate and the leak rate measured after charging were related in a math. predictable way.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 10 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:561421 CAPLUS  
DOCUMENT NUMBER: 122:293204  
ORIGINAL REFERENCE NO.: 122:53431a,53434a  
TITLE: Rubber stoppers and their manufacture  
INVENTOR(S): Takeuchi, Isao; Takeuchi, Shotaro; Maekawa, Takeshi; Hiraizumi, Juichi  
PATENT ASSIGNEE(S): Joso Koshitsu Kuroomu Jugen, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 07017548	A	19950120	JP 1993-162350	19930630
PRIORITY APPLN. INFO.:			JP 1993-162350	19930630
AB Title stoppers, useful for chemical or medicine containers, contain fluoro rubber-covered (butyl) rubber feet . A Dai-el rubber-coated butyl rubber stopper was prepared				

L7 ANSWER 11 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:561414 CAPLUS  
DOCUMENT NUMBER: 122:293199  
ORIGINAL REFERENCE NO.: 122:53427a,53430a  
TITLE: Rubber stoppers, their manufacture and molds therefor  
INVENTOR(S): Takeuchi, Isao; Takeuchi, Shotaro; Maekawa, Takeshi; Hiraizumi, Juichi  
PATENT ASSIGNEE(S): Joso Koshitsu Kuroomu Jugen, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07017547	A	19950120	JP 1993-162349	19930630

PRIORITY APPLN. INFO.: JP 1993-162349 19930630

AB Title stoppers, useful for chemical or medicine containers, contain fluoropolymer films covered on butyl rubber feet and up to the boundary parts between the feet and the caps. A Neoflon ETFE EF 0050-coated butyl rubber stopper was prepared

L7 ANSWER 12 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:216121 CAPLUS

DOCUMENT NUMBER: 116:216121

ORIGINAL REFERENCE NO.: 116:36625a,36628a

TITLE: Removal of unwanted fins of rubber moldings

INVENTOR(S): Kizawa, Masao; Kuramochi, Hiroshi

PATENT ASSIGNEE(S): Sanyo Trading Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04014414	A	19920120	JP 1990-118027	19900508
JP 06069688	B	19940907		

PRIORITY APPLN. INFO.: JP 1990-118027 19900508

AB Unwanted fins of rubber moldings are removed by blasting with powdered melamine, urea, or phenolic resins preferably at 120-200° and 0.5-7 kg/cm2. Thus, side fins (thickness 0.05-0.2 mm) of butyl rubber stoppers were completely removed by blasting powdered melamine resin at 2 kg/cm2 and 150° for 5 s.

L7 ANSWER 13 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:171280 CAPLUS

DOCUMENT NUMBER: 114:171280

ORIGINAL REFERENCE NO.: 114:28801a,28804a

TITLE: Contamination of injectable powders by volatile hydrocarbons from rubber stoppers. The C13-oligomer and determination of its structure

AUTHOR(S): Jaehnke, Richard W. O.; Linde, Hermann; Mosandl, Armin; Kreuter, Joerg

CORPORATE SOURCE: Inst. Pharm. Technol., Johann Wolfgang Goethe-Univ., Frankfurt/Main, D-6000/11, Germany

SOURCE: Acta Pharmaceutica Technologica (1990), 36(3), 139-48  
CODEN: APTEDD; ISSN: 0340-3157

DOCUMENT TYPE: Journal

LANGUAGE: German

AB Combined gas chromatog.-mass spectrometry was employed to detect and isolate volatile diisobutene-isoprene oligomers as the major components of the headspace volatiles from Bu and chlorobutyl rubber vial stoppers, commonly used for storing solid pharmaceuticals. Structure elucidation by 1H- and 13C-NMR revealed the C13 oligomer from butyl rubber as 1-isopropenyl- and that from chlorbutyl rubber as 1-(1-chloromethylethenyl)-2,2,4,4-tetramethylcyclohexane.

L7 ANSWER 14 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:494540 CAPLUS

DOCUMENT NUMBER: 109:94540

ORIGINAL REFERENCE NO.: 109:15779a,15782a

TITLE: Properties of chlorinated butyl rubber stoppers for plugging of blood containers

AUTHOR(S): Borisenko, I. S.; Berestnev, V. A.; Snegovskaya, S. A.; Shenfil, L. Z.

CORPORATE SOURCE: USSR

SOURCE: Kauchuk i Rezina (1988), (6), 21-3  
CODEN: KCRZAE; ISSN: 0022-9466

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB The stickiness of the title stoppers was reduced and their airtightness retention after repeated needle puncture was improved by increasing the levels of S and thiuram D from 0.5 to 1.0 parts. An increased oxidizability of the stoppers, caused by migration of vulcanizing agents and their degradation products in stoppers containing high levels of S and thiuram D, was reduced by increasing the content of chlorinated Bu rubber in Bu rubber stoppers from 20 to 100%. The lowest stickiness was shown by the stoppers from the rubber NT-1068.

L7 ANSWER 15 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1987:215330 CAPLUS

DOCUMENT NUMBER: 106:215330

ORIGINAL REFERENCE NO.: 106:34949a,34952a

TITLE: Optimization of the composition of butyl rubber stoppers for corking of donated blood

AUTHOR(S): Borisenko, I. S.; Berestnev, V. A.; Shenfil, L. Z.

CORPORATE SOURCE: USSR

SOURCE: Kauchuk i Rezina (1987), (2), 16-18  
CODEN: KCRZAE; ISSN: 0022-9466

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB The composition of butyl rubber (BR)-chlorinated butyl rubber (CBR) blends for manufacture of stoppers was optimized using a linear regression model correlating levels of blend ingredients (fillers, vulcanizing agents, plasticizers, etc.) with important stopper properties (self-sealing capacity, self-closing of punctures, oxidizability, etc.). Self-sealing capacity was most affected by the BR-CBR ratio and the type of filler, while adhesion depended mainly on the type of inorg. filler, with lowest adhesion obtained using lithopone or chalk in place of talc. 80:20 BR-CBR blends exhibited the best combination of properties.

L7 ANSWER 16 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:599678 CAPLUS

DOCUMENT NUMBER: 97:199678

ORIGINAL REFERENCE NO.: 97:33445a,33448a

TITLE: Antiblocking coating of butyl rubber stoppers

PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 57096837	A	19820616	JP 1980-174060	19801209
PRIORITY APPLN. INFO.:			JP 1980-174060	19801209

AB Antiblocking rubber moldings are prepared by coating the moldings with solns. of siloxanes having OH or OMe groups in mol. chain and containing crosslinking agents. Thus, butyl rubber stoppers were immersed in a 0.01% solution of di-Me siloxane containing 0.5% (based on siloxane) Me<sub>2</sub>Si(OMe)<sub>2</sub> [1112-39-6] crosslinking agent and heated 30 min at 100° to decrease the blocking of the stoppers from 1.2 (before siloxane treatment) to 0.3 kg.

L7 ANSWER 17 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:21133 CAPLUS  
DOCUMENT NUMBER: 96:21133  
ORIGINAL REFERENCE NO.: 96:3531a,3534a  
TITLE: Rubber stopper for sealing  
INVENTOR(S): Eguchi, Tsukasa; Morozumi, Mituharu  
PATENT ASSIGNEE(S): Kashima Chemical Co., Ltd., Japan; Asahi Glass Co., Ltd.  
SOURCE: Eur. Pat. Appl., 34 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 27028	A1	19810415	EP 1980-303451	19800930
EP 27028	B1	19830615		
R: CH, DE, FR, GB				
JP 56050930	A	19810508	JP 1979-126389	19791002
US 4316941	A	19820223	US 1980-190957	19800926
PRIORITY APPLN. INFO.:			JP 1979-126389	A 19791002

AB Rubber stoppers with good lubricity and soiling resistance contain a surface layer of silicone-fluoropolymer elastomer. For example, a solution of 70 g 55:44:2 (molar) tetrafluoroethylene-propene-glycidyl vinyl ether copolymer (number-average d.p. 800) was treated with 30 g Me<sub>3</sub>SiO(SiMe<sub>2</sub>O)<sub>3</sub>000[SiMe(C<sub>3</sub>H<sub>6</sub>NH<sub>2</sub>O)]<sub>3</sub>0SiMe<sub>3</sub> for 16 h at room temperature, heated at 77° for 2 h, extracted with CCl<sub>4</sub> to remove unreacted silicone, and dried to give a transparent, soft polymer (I). A butyl rubber stopper was dipped into a 5% I solution in 1,1,2-trichlorotrifluoroethane containing a small amount of EtOAc and dried at 150° for 30 min to give a 5 μ coating.

L7 ANSWER 18 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1981:605245 CAPLUS  
DOCUMENT NUMBER: 95:205245  
ORIGINAL REFERENCE NO.: 95:34309a,34312a  
TITLE: Stoppers for drug containers  
PATENT ASSIGNEE(S): Dow Corning K. K., Japan; Daikyo Gomu Seiko K. K.  
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 56104674	A	19810820	JP 1979-166710	19791221
PRIORITY APPLN. INFO.:			JP 1979-166710	A 19791221

AB Butyl rubber or halogenated butyl rubber

stoppers for drug containers are coated with siloxanes having 2-aminoethyl groups to form coatings having good adhesion to the substrates. Thus, a butyl rubber stopper was coated with a 5%-solids solution of reaction products (8 h at reflux temperature) of 10 parts 3-(2-aminoethylamino)propyltrimethoxysilane and 40 parts hydroxy-terminated di-Me siloxane in iso-PrOH and baked 10-12 min at 80-100°. When 10 of those stoppers were shaken with 100 cm<sup>3</sup> H<sub>2</sub>O, the water contained 2-5, 5-10, and 10-20 μ-diameter particles 251, 5, and 0 pieces, resp., compared with 18,820, 1501, and 34, resp., for similar stoppers coated with di-Me siloxane.

L7 ANSWER 19 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1978:535825 CAPLUS  
DOCUMENT NUMBER: 89:135825  
ORIGINAL REFERENCE NO.: 89:20927a,20930a  
TITLE: Butyl rubber stoppers  
for sealing bottles containing blood substitutes and  
injection solutions  
AUTHOR(S): Kosyрева, N. S.; Loginova, L. I.; Shenfil, L. Z.;  
Bovenko, V. N.  
CORPORATE SOURCE: Vses. Nauchno-Issled. Inst. Farm., Moscow, USSR  
SOURCE: Farmatsiya (Moscow, Russian Federation) (1978), (4),  
49-51  
CODEN: FRMTAL; ISSN: 0367-3014  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian

AB Newly developed butyl rubber for injections and blood substitutes when left in contact with water for injections or physiol. saline at 120° for 30 min showed no Zn, Pb, Ba, etc., in the extract It was superior to the other rubbers in its oxidation indicators and did not lower the pH of the solns. (contrary to the earlier rubbers). It showed no toxicity, bactericidal properties. and hemolytic action. Storage of various solns. in contact with the stoppers made from this rubber at elevated temps. led to the formation of volatile sulfides which imparted H<sub>2</sub>S odor to the prepns. However, storage at room temperature for 18 mo gave no such odor. Stickiness associated with these butyl rubbers was reduced by selecting high-mol. weight butyl rubber and siliconization.

L7 ANSWER 20 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1978:106555 CAPLUS  
DOCUMENT NUMBER: 88:106555  
ORIGINAL REFERENCE NO.: 88:16721a,16724a  
TITLE: Rubber blend for stoppering containers with drugs,  
especially antibiotics  
INVENTOR(S): Gorczynski, Jan; Wdowiarek, Wlodzimierz; Zarczynski,  
Antoni; Zupanski, Andrzej; Swierczynska, Wanda;  
Trzcinska, Maria; Zajac, Mieczyslaw; Wypych, Maria;  
Kurek, Jan; Wdowiak, Janina  
PATENT ASSIGNEE(S): Instytut Przemyslu Gumowego "Stomil", Pol.  
SOURCE: Pol., 2 pp.  
CODEN: POXXA7  
DOCUMENT TYPE: Patent  
LANGUAGE: Polish  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PL 82752	A5	19751031	PL 1970-141142	19700608
PRIORITY APPLN. INFO.:			PL 1970-141142	A 19700608
AB Rubber blends not evolving harmful volatile products characteristic of				

common rubber products were obtained by supplying the rubber mixts. with 0.1-20% of strongly adsorbing materials such as silica gel or activated C. The amount of adsorbent required depended on the amount of stabilizers in the rubber and on the kind and amount of aging inhibitors added. E.g., a blend consisted of butyl rubber 100, ZnO 3, kaolin 30, precipitated silica (sp. surface .apprx.100 m<sup>2</sup>/g) 20, stearic acid 1, Zn diethyldithiocarbamate 0.8, S 0.5, and activated C 1.0 part.

L7 ANSWER 21 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1978:70006 CAPLUS  
DOCUMENT NUMBER: 88:70006  
ORIGINAL REFERENCE NO.: 88:11027a,11030a  
TITLE: Effect of the type of stopper rubber on the toxicological properties of stoppers  
AUTHOR(S): Shumskaya, N. I.; Sergeeva, L. G.; Chikishev, Yu. G.  
CORPORATE SOURCE: Nauchno-Issled. Inst. Rezin. Lateksnykh Izdelii, Moscow, USSR  
SOURCE: Farmatsiya (Moscow, Russian Federation) (1977), 26(6), 66-7  
CODEN: FRMTAL; ISSN: 0367-3014  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian

AB Antibiotics were stored for unspecified periods in flasks stoppered with 10 com. available butyl rubber stoppers. Tinctures of the antibiotics were administered i.p. to rats and i.v. to mice at 20 mL/kg every other day for 1 mo or s.c. to rabbits once at 0.2 mL. Tests for neuromuscular excitability, blood Hb levels, body weight gain, urinary Cl- excretion, and liver and kidney mass coeffs. showed the only 3 butyl rubber stoppers, 52-369 A, 52-359 B, and IR-119 A were biol. inert and could be recommended for use in medicinal containers.

L7 ANSWER 22 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1976:413580 CAPLUS  
DOCUMENT NUMBER: 85:13580  
ORIGINAL REFERENCE NO.: 85:2120h,2121a  
TITLE: Interference by butyl rubber stoppers in GLC analysis for theophylline  
AUTHOR(S): Chrzanowski, Francis; Niebergall, Paul J.; Mayock, Robert; Taubin, Joel; Sugita, Edwin  
CORPORATE SOURCE: Dep. Pharm., Philadelphia Coll. Pharm. Sci., Philadelphia, PA, USA  
SOURCE: Journal of Pharmaceutical Sciences (1976), 65(5), 735-6  
CODEN: JPMSAE; ISSN: 0022-3549  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB During a study of the pharmacokinetics of theophylline (I) [58-55-9] using gas-liquid chromatog., unexpectedly high values occurred in a random manner. The cause of these abnormal values was investigated, and significant interference was observed when blood samples were drawn using evacuated glass tubes sealed with butyl rubber stoppers. In vitro tests using distilled water showed no apparent I levels due to the additives in 3 commonly used tubes. However, when water was allowed to remain in contact with the butyl rubber stoppers for 1 min, an apparent I content of as high as 5.5 µg/mL was observed. A contact time of 60 min resulted in apparent I levels of as high as 52.3 µg/mL. It was concluded that a substance leached from the butyl rubber stoppers accounted for the spurious results.



L7 ANSWER 23 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1970:80090 CAPLUS  
DOCUMENT NUMBER: 72:80090  
ORIGINAL REFERENCE NO.: 72:14607a,14610a  
TITLE: Stoppering of containers in vacuum  
AUTHOR(S): Malpas, E. W.  
CORPORATE SOURCE: Edwards High Vacuum Ltd., Crawley, UK  
SOURCE: Proc. Int. Vac. Congr., 4th (1968), Issue Pt. 2,  
759-62  
CODEN: 17IGAQ  
DOCUMENT TYPE: Conference  
LANGUAGE: English

AB Air-leak rates on stoppered vials of the type used in shelf freeze dryers were determined Butyl rubber stoppers treated in various ways (smeared with a thin film of silicone grease, cleaned in detergent, or coated with a thin film of silicone rubber) indicated that the surface texture of the stopper was an important factor in the cause of leakage of air into the vials. Lowest leak rates were achieved with the silicone grease-coated stoppers. When the effect of capping with a standard Al cap was investigated, the capped butyl rubber stoppers had a higher leak rate than the uncapped stoppers, which was attributed to distortion of the stopper on crimping. The leak rate, though variable, depending on individual stoppers and vials, was .apprx.10<sup>-5</sup> lusecs after 6 months. Assuming that a 5-ml vial was used with an average free volume of 13.5 ml, a leak rate of this magnitude would give an approx. partial air pressure in the vial of 23 torr after a period of one year.

L7 ANSWER 24 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1968:408781 CAPLUS  
DOCUMENT NUMBER: 69:8781  
ORIGINAL REFERENCE NO.: 69:1647a,1650a  
TITLE: Method for automatic gas chromatographic head-space analysis  
AUTHOR(S): Jentzsch, Dietrich; Krueger, H.; Lebrecht, G.; Dencks, G.; Gut, Jiri  
CORPORATE SOURCE: Entwicklungslab. Gas-Chromatogr., Bodenseewerk Perkin-Elmerund Co. G.M.B.H., Ueberlingen, Fed. Rep. Ger.  
SOURCE: Fresenius' Zeitschrift fuer Analytische Chemie (1968), 236(1), 96-118  
CODEN: ZACFAU; ISSN: 0016-1152  
DOCUMENT TYPE: Journal  
LANGUAGE: German

AB An electro-pneumatic dosing apparatus for automatic gas-chromatographic head-space anal. is described. The head-space sample is taken with a heated sampler, in order to avoid sample variations due to condensation, and then transferred with carrier gas to the chromatographic column. With nonstandardized absorption peak-height evaluation <0.7% relative standard deviation was obtained and with evaluation of a ratio of 2 peak heights <0.5% relative standard deviation. Quant. anal. applications are demonstrated for blood-alc. measurements by the procedure of G. Machata (1967). Qual. applications are demonstrated by the head-space anal. of various teas and tobaccos and in studying the stability of butyl rubber stoppers in a H atmospheric

L7 ANSWER 25 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1966:439581 CAPLUS  
DOCUMENT NUMBER: 65:39581

ORIGINAL REFERENCE NO.: 65:7426c-d  
TITLE: Washing of rubber stoppers that come into contact with  
drugs  
AUTHOR(S): van Damme, P. A.  
CORPORATE SOURCE: "Helvoet" Gummiwerke, Hellevoetsluis, Neth.  
SOURCE: Pharmaceutica Acta Helvetiae (1966), 41(5), 315-19  
CODEN: PAHEAA; ISSN: 0031-6865  
DOCUMENT TYPE: Journal  
LANGUAGE: German

AB Three kinds of rubber stoppers, 2 from natural rubber and 1 from a  
copolymer of isoprene and isobutylene (butyl rubber), were subjected to  
different pretreatments. Treated and untreated stoppers were autoclaved  
at 120° for 30 min. in distilled H2O. The H2O exts. were analyzed for  
turbidity (Coleman nephelometer), pH, organic content (excess acid KMnO4-I),  
Zn2+ (polarograph). The volatile material (sulfide) was determined quant.  
according to the method of Krebs and Wetzell, Deut. Apotheker-Ztg. 97(23),  
510-11(1957). The maximum and min. values were tabulated.

L7 ANSWER 26 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1966:61358 CAPLUS  
DOCUMENT NUMBER: 64:61358  
ORIGINAL REFERENCE NO.: 64:11530g  
TITLE: Suitability of butyl rubber  
stoppers for closing anaerobic roll culture  
tubes  
AUTHOR(S): Hungate, R. E.; Smith, W.; Clarke, R. T. J.  
CORPORATE SOURCE: Univ. of California, Davis  
SOURCE: Journal of Bacteriology (1966), 91(2), 908-9  
CODEN: JOBAAY; ISSN: 0021-9193  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Diffusion of O2, CO2, or H2 through the rubber of common laboratory stoppers  
was  
eliminated by substitution of stoppers of butyl rubber.

L7 ANSWER 27 OF 27 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1961:134513 CAPLUS  
DOCUMENT NUMBER: 55:134513  
ORIGINAL REFERENCE NO.: 55:25321f-g  
TITLE: Oil-resistant rubber for stoppers  
AUTHOR(S): Martynova, V. A.; Mel'nikova, G. K.  
SOURCE: Meditsinskaya Promyshlennost SSSR (1961), 15(No. 4),  
57-60  
CODEN: MPSSA9; ISSN: 0369-1586  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable

AB The swelling of butyl, nitrile, and silicone rubber in peach, sunflower,  
castor, and mineral oil was investigated. I, acid, and saponification  
nos. of oil after sterilization in the presence of rubber for 20 min. at  
120° were determined Alkaline, acid, and reducing substances were extracted by  
mineral oil from Russian nitrile rubber, but not from Canadian. Use of  
butyl rubber stoppers is recommended for  
vegetable oils, and of nitrile rubber for mineral oil.

=> d his

(FILE 'HOME' ENTERED AT 10:36:55 ON 20 OCT 2008)

FILE 'CAPLUS' ENTERED AT 10:37:20 ON 20 OCT 2008

L1 130430 S INJECTIONS

```
L2          0 S L1 AND PENTAPREZOLE
L3          0 S L1 AND PENTOPRAZOLE
L4          3 S L1 AND "BUTYL RUBBER STOPPERS"
```

FILE 'STNGUIDE' ENTERED AT 10:39:52 ON 20 OCT 2008

```
L5          0 S "BUTYL RUBBER STOPPERS"
L6          0 S L1 AND STOPPERS
```

FILE 'CAPLUS' ENTERED AT 10:41:19 ON 20 OCT 2008

```
L7          27 S "BUTYL RUBBER STOPPERS"
```

=> s l7 and 'type 1'

MISMATCHED QUOTE 'AND 'TYPE'

Quotation marks (or apostrophes) must be used in pairs,  
one before and one after the expression you are setting  
off or masking.

=> s l7 and "type 1"

```
1974983 "TYPE"
661994 "TYPES"
2486678 "TYPE"
      ("TYPE" OR "TYPES")
9851968 "1"
83128 "TYPE 1"
      ("TYPE"(W)"1")
```

```
L8          0 L7 AND "TYPE 1"
```

=> l7 and pharmacopoeia

L7 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (=>).

=> s l7 and pharmacopoeia

```
2971 PHARMACOPOEIA
260 PHARMACOPOEIAS
3181 PHARMACOPOEIA
      (PHARMACOPOEIA OR PHARMACOPOEIAS)
```

```
L9          0 L7 AND PHARMACOPOEIA
```

=> s l7 and fluoro-polymer

```
106247 FLUORO
4 FLUOROS
106250 FLUORO
      (FLUORO OR FLUOROS)
1222727 POLYMER
971182 POLYMERS
1634436 POLYMER
      (POLYMER OR POLYMERS)
1046 FLUORO-POLYMER
      (FLUORO(W)POLYMER)
```

```
L10         0 L7 AND FLUORO-POLYMER
```

=> fluoro-polymer

FLUORO-POLYMER IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (=>).

=> s fluoro-polymer

```
106247 FLUORO
```

4 FLUOROS  
 106250 FLUORO  
 (FLUORO OR FLUOROS)  
 1222727 POLYMER  
 971182 POLYMERS  
 1634436 POLYMER  
 (POLYMER OR POLYMERS)  
 L11 1046 FLUORO-POLYMER  
 (FLUORO(W)POLYMER)

=> l11 and stoppers  
 L11 IS NOT A RECOGNIZED COMMAND  
 The previous command name entered was not recognized by the system.  
 For a list of commands available to you in the current file, enter  
 "HELP COMMANDS" at an arrow prompt (=>).

=> s l11 and stoppers  
 3806 STOPPERS  
 L12 2 L11 AND STOPPERS

=> d l12 1-2 ibib ab

L12 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1998:357591 CAPLUS  
 DOCUMENT NUMBER: 129:89052  
 ORIGINAL REFERENCE NO.: 129:18183a,18186a  
 TITLE: Semiconductor devices and fabrication thereof using  
 polymer etching stoppers  
 INVENTOR(S): Hasegawa, Toshiaki; Fukazawa, Masanaga  
 PATENT ASSIGNEE(S): Sony Corp., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 10150105	A	19980602	JP 1997-114656	19970502
JP 3997494	B2	20071024		

PRIORITY APPLN. INFO.: JP 1996-244375 A 19960917  
 AB The etching stopper in formation of grooves and contact holes in the title  
 devices employs an organic polymers such as polyaryl ether, poly-p-xylene,  
 polyimide, and/or polynaphthalene instead of prior-art Si nitride. The  
 dielec. constant for the polymers is lower than that of a silica film. A  
 non-fluoro polymer may be an etching stopper for a  
 fluoro-polymer film. The arrangement gives wire-buried  
 interlayer insulator films a low dielec. constant

L12 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1995:360695 CAPLUS  
 DOCUMENT NUMBER: 122:163128  
 ORIGINAL REFERENCE NO.: 122:30043a,30046a  
 TITLE: Crosslinked fluoropolymer film laminates with rubbers  
 and their use for electrolytic capacitors and bottle  
 stoppers  
 INVENTOR(S): Murakami, Tomoyuki  
 PATENT ASSIGNEE(S): Nitto Denko Corp, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF

DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06312486	A	19941108	JP 1993-102591	19930428
PRIORITY APPLN. INFO.:			JP 1993-102591	19930428

AB Exposing an ethylene-tetrafluoroethylene copolymer 100- $\mu$ m thick film to 5-Mrad irradiation for crosslinking, applying 13.56 MHz voltage in Ar gas at 0.1 torr and 2 W/cm<sup>2</sup> for 3 s for sputter etching treatment, applying Metaloc G (primer), bonding to a 2-mm-thick plate composed of 100 parts acrylonitrile-butadiene rubber and 2 parts Perkadox (vulcanizing agent), and press-heating at 150° for 30 min gave a film for a packaging showing  $\gamma$ -butyrolactone permeability  $5.2 \times 10^{-3}$  vs.  $1.6 \times 10^{-2}$  for a test piece without crosslinking by irradiation

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(FILE 'HOME' ENTERED AT 10:36:55 ON 20 OCT 2008)

FILE 'CAPLUS' ENTERED AT 10:37:20 ON 20 OCT 2008

L1 130430 S INJECTIONS  
L2 0 S L1 AND PENTAPREZOLE  
L3 0 S L1 AND PENTOPRAZOLE  
L4 3 S L1 AND "BUTYL RUBBER STOPPERS"

FILE 'STNGUIDE' ENTERED AT 10:39:52 ON 20 OCT 2008

L5 0 S "BUTYL RUBBER STOPPERS"  
L6 0 S L1 AND STOPPERS

FILE 'CAPLUS' ENTERED AT 10:41:19 ON 20 OCT 2008

L7 27 S "BUTYL RUBBER STOPPERS"  
L8 0 S L7 AND "TYPE 1"  
L9 0 S L7 AND PHARMACOPOEIA  
L10 0 S L7 AND FLUORO-POLYMER  
L11 1046 S FLUORO-POLYMER  
L12 2 S L11 AND STOPPERS